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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,110	05/19/2006	Hiroyuki Tanaka	Q94611	9773

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EXAMINER	
ZACHARIA, RAMSEY E	
ART UNIT	PAPER NUMBER
1794	
MAIL DATE	DELIVERY MODE
03/06/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,110	TANAKA ET AL.	
	Examiner	Art Unit	
	Ramsey Zacharia	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/19/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 7 and 8 are objected to because they are not in the form of a sentence. Appropriate correction is required.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 8, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-201288.

JP 11-201288 teach a gasket used in vacuum seals (paragraph 0001). The gasket comprises an elastic body having a metal layer formed on its inner circumference (paragraph 0005). The elastic body may comprise a fluorocarbon rubber, NBR, or silicone (paragraph 0006). The metal may be aluminum and may have a thickness of as low as 0.1 μm (paragraph

0006). Preferably, the metal layer is adhered (i.e. pasted up) to the elastic body (paragraph 0006).

With respect to the shore A and shore D hardnesses of the elastic body, since hardness is a material property and since JP 11-201288 teach the use of the same the materials (i.e. fluorocarbon rubber, NBR, and silicone) as the instant invention (see page 6, lines 12-17), the elastic body of JP 11-201288 should inherently have shore A and shore D hardnesses that meet the limitations of instant claim 1. This position is further supported by the fact that the article of JP 11-201288 is designed to be a sealing member and, according to the instant specification, materials with a shore D hardness of more than 75 are too hard to be suitable sealing materials and those with a shore A hardness of less than 40 cannot obtain proper sealing (see page 6, lines 5-12).

Regarding claim 8, the gasket of JP 11-201288 should inherently meet the limitations of this claim since it is explicitly designed to be resistant to plasma (see paragraph 0011) and since, according to the instant specification, aluminum coatings are preferred due to their plasma resistance (see page 22, lines 11-14).

Regarding claims 11 and 12, the limitations of these claims are met since vacuum systems are used in the manufacture of liquid crystal and semiconductor.

5. Claims 1, 2, and 5-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumura (US 5,538,262).

Matsumura teaches an ultra-high vacuum gasket for use in a semiconductor manufacturing apparatus (column 1, lines 9-15). The gasket comprises a core material of an

elastomer having a JIS hardness equal to or less than 120 upon which is deposited a 10^{-3} to 100 μm thick coating of aluminum (column 2, lines 9-21). The coating may be formed by ion plating (column 2, lines 23-27).

With respect to the shore A and shore D hardnesses of the core material, since hardness is a material property and since both Matsumura and the instant invention teaches the use of an elastomer, the core material of Matsumura should inherently have shore A and shore D hardnesses that meet the limitations of instant claim 1. This position is further supported by the fact that the article of Matsumura is designed to be a sealing member and, according to the instant specification, materials with a shore D hardness of more than 75 are too hard to be suitable sealing materials and those with a shore A hardness of less than 40 cannot obtain proper sealing (see page 6, lines 5-12).

Regarding claims 6 and 7, the limitations of these claims are taken to be inherently met since the gasket of Matsumura appears to be made of the same materials (i.e. an elastomer core with an aluminum coating) and the coating is applied in the same manner (i.e. ion plating).

Regarding claim 8, the gasket of Matsumura should inherently meet the limitations of this claim since, according to the instant specification, aluminum coatings are preferred due to their plasma resistance (see page 22, lines 11-14).

Claim Rejections - 35 USC § 102 / 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 6, 7, 9, and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 11-201288.

Regarding claims 6 and 7, JP 11-201288 teach all the limitations of these claims except for specifying the adhesive strength between the elastic body and the metal coating by means of the methodology recited in the claims.

However, JP 11-201288 does teach that it is preferred to adhere the metal to the elastic body (paragraph 0006).

Therefore, in the event that the adhesion between the metal and the elastic body for metal coatings having thickness of 0.1 μm does not inherently meet the limitations of claims 6 and 7, it would have been obvious to one skilled in the art to increase the adhesion since JP 11-201288 explicitly teaches that it is preferred for the metal to be bound to the elastic body.

Regarding claims 9 and 10, these claims are product-by-process claims. When the prior art discloses a product which reasonably appears to be either identical with or only slightly different than a product claim in a product-by-process claim, the burden is on the applicant to present evidence from which the examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. *In re Brown*, 459 F. 2d 531, 173 USPQ 685 (CCPA 1972); *In re Fessman*, 489 F. 2d 742, 180 USPQ 324 (CCPA 1974). This burden is NOT discharged solely because the product was derived from a process not known to the prior art. *In re Fessman*, 489 F. 2d 742, 180 USPQ 324 (CCPA 1974). Furthermore, the determination of patentability for a product-by-process claim is based on the product itself and not on the method of production. If the product in the product-by-process claim is the same or obvious from a

product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985) and MPEP § 2113. In this case, since the gasket of JP 11-201288 meets all the structural limitations of claims 9 and 10, the burden is on the applicants to conclusively demonstrate that product of product-by-process claims 9 and 10 differs in kind from that of JP 11-201288.

Claim Rejections - 35 USC § 103

8. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumura (US 5,538,262) in view of JP 11-201288.

Matsumura teaches an ultra-high vacuum gasket for use in a semiconductor manufacturing apparatus (column 1, lines 9-15). The gasket comprises a core material of an elastomer, such as a synthetic rubber, having a JIS hardness equal to or less than 120 upon which is deposited a 10^{-3} to 100 μm thick coating of aluminum (column 2, lines 9-21). The coating may be formed by ion plating (column 2, lines 23-27).

Matsumura does not teach specific elastomers for use as the core material.

JP 11-201288 teach a gasket used in vacuum seals (paragraph 0001). The gasket comprises an elastic body having a metal layer formed on its inner circumference (paragraph 0005). The elastic body may comprise a fluorocarbon rubber, NBR, or silicone (paragraph 0006).

It would have been obvious to one skilled in the art to use the elastic material of JP 11-201288 as the core of Matsumura since it has been held that the selection of a known material (i.e. fluorocarbon rubber, NBR, or silicone) based on its suitability for its intended use (core of

gasket in vacuum system) supported a *prima facie* obviousness determination. See MPEP 2144.07.

With respect to the shore A and shore D hardnesses of the elastic body, since hardness is a material property and since JP 11-201288 teach the use of the same the materials (i.e. fluorocarbon rubber, NBR, and silicone) as the instant invention (see page 6, lines 12-17), the elastic body of JP 11-201288 should inherently have shore A and shore D hardnesses that meet the limitations of instant claim 1. This position is further supported by the fact that the article of JP 11-201288 is designed to be a sealing member and, according to the instant specification, materials with a shore D hardness of more than 75 are too hard to be suitable sealing materials and those with a shore A hardness of less than 40 cannot obtain proper sealing (see page 6, lines 5-12).

Regarding claims 6 and 7, the limitations of these claims are taken to be inherently met since the gasket of Matsumura taken in view of JP 11-201288 appears to be made of the same materials (i.e. an elastomer, such as fluorocarbon rubber, NBR, or silicone, with an aluminum coating) and the coating is applied in the same manner (i.e. ion plating).

Regarding claim 8, the gasket of Matsumura should inherently meet the limitations of this claim since, according to the instant specification, aluminum coatings are preferred due to their plasma resistance (see page 22, lines 11-14).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (571) 272-1518. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached at (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Ramsey Zacharia/

Primary Examiner, Art Unit 1794